Feb. 21, 1950 L. GOLDENBERG 2,498,205

FLOOR POLISHER

Filed Jan. 30, 1945 2 Sheets-Sheet 1

Fig. 1.

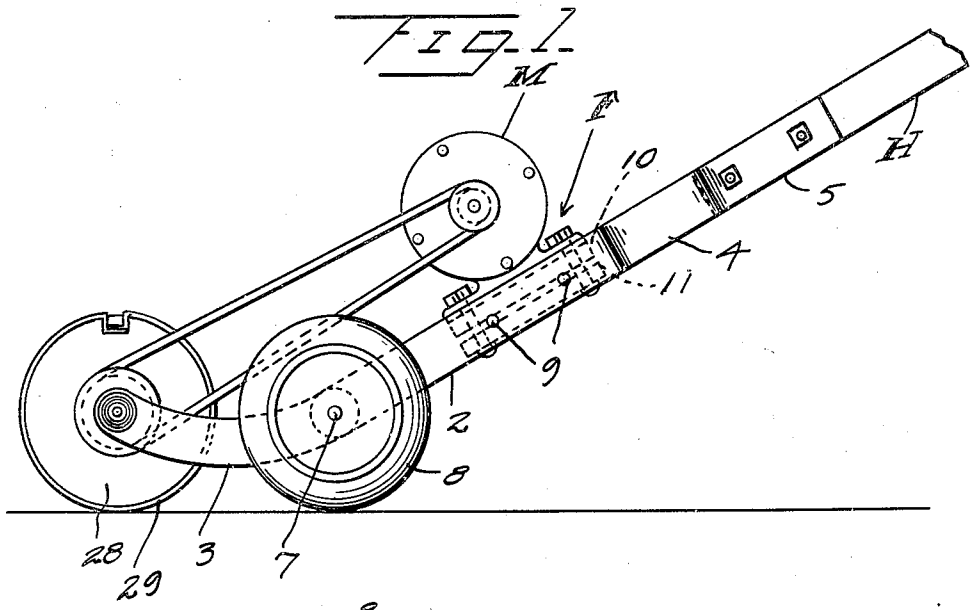
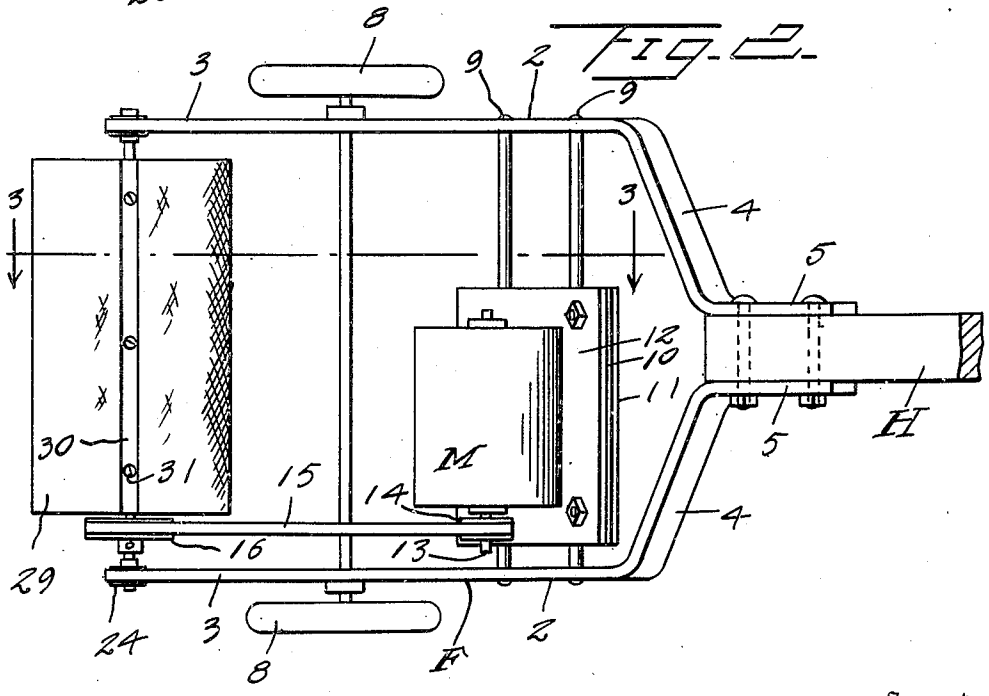


Fig. 2.



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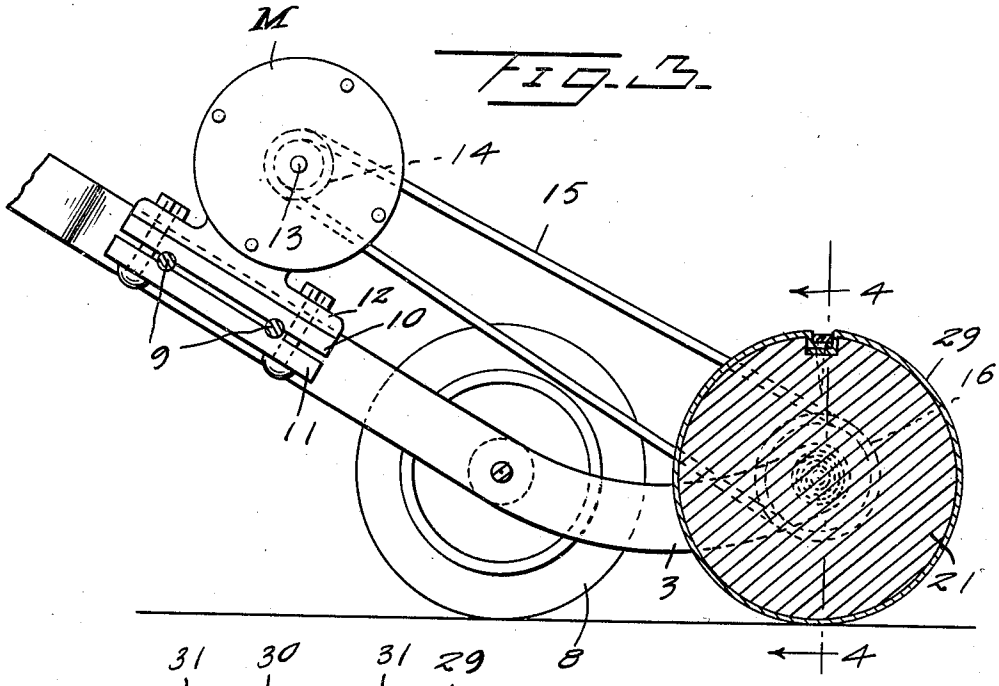


FIG. 3.

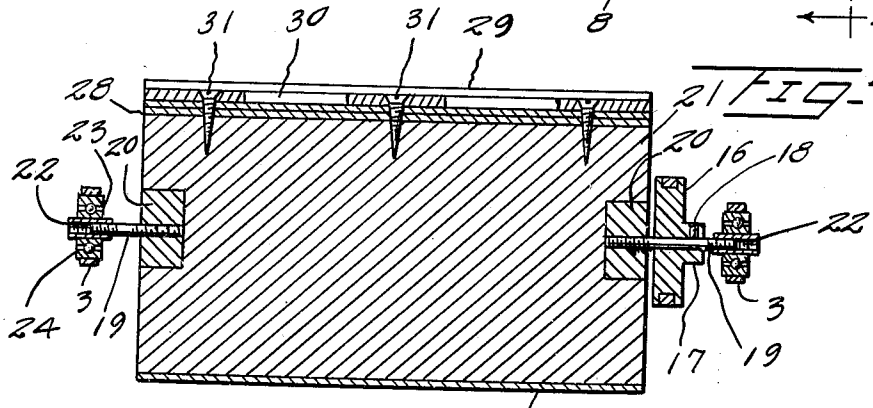


FIG. 4.

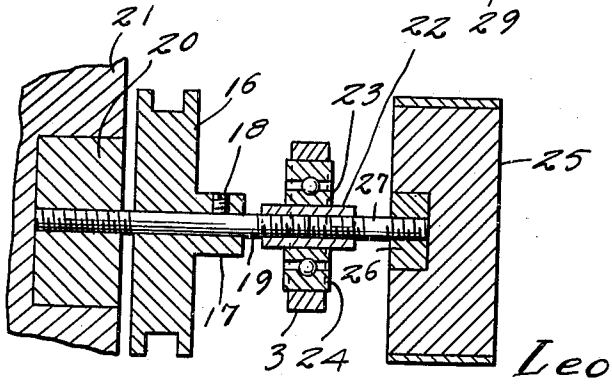


FIG. 5.

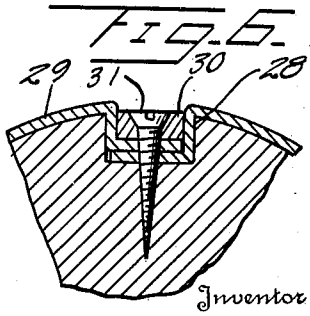


FIG. 6.

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2,498,205

FLOOR POLISHER

Leon Goldenberg, Shreveport, La.

Application January 30, 1945, Serial No. 575,258

2 Claims. (Cl. 15—98)

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This invention relates to floor polishers or buffers of the revolving type and is embodied in a machine which may be manufactured at low cost and easily serviced.

One of the important aims of this invention is the provision of a machine that may be wheeled by the operator with care over a floor to be polished or otherwise treated and the roller of which will engage the floor when a slight upward force on the handle held by the operator is applied by the latter.

Another object of the invention is the provision of means whereby the carpet covering of the polishing roller may be easily attached thereto or detached therefrom.

Other objects of the invention will appear during the course of the following specification referring to the accompanying drawings, wherein:

In the drawings:

Figure 1 is a side elevation of my polishers;

Figure 2 is a plan view;

Figure 3 is a vertical and central section on line 3—3 of Figure 2;

Figure 4 is an axial detail section of the entire roller on line 4—4 of Figure 3;

Figure 5 is an enlarged detail section through the end of roller, the adjacent supporting frame portion, and the adaptor roller connected to the floor polisher;

Figure 6 is a transverse detail section through the fragment of the roller containing the slot in which the roller covering is held.

The frame F of the buffer comprises parallel bars 2, preferably of metal, which at their approximate midpoints are curved upward 3 and bent inwardly at the their rear or handle end portions 4. The extreme end portions 5 of these handle parts are bent into parallelism and spaced to the extent of the width of the handle H, which is secured between them by bolts or otherwise. Through the junction of the straight and curved portions of the bars 2 passes the floor wheel axle 7 carrying rubber tired floor wheels 8 upon its portions protruding beyond the frame. The two frame portions 2 in the plane of which the handle lies, are connected by two parallel rods 9, which brace the frame and support the electric motor M by means of two plates 10, 11 that are oppositely grooved for the reception of the rods and bolted together. These bolts also hold the motor base 12 to the entire assembly.

The motor which may be controlled by a switch (not shown) located at the upper free end of the handle, has an outwardly extending shaft 13 upon the outer end of which is secured a

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pulley 14. A belt 15 is trained over the latter and also over a pulley 16 which has a hub portion 17 with a radial hole for a set screw 18 bearing with its inner end against an axle 19. The latter is threaded upon both end portions. The inner end portion of axle 19 is threaded into a block 20 held in a concentric recess in one end of roller 21. The other outer end of axle 19 is threaded into a bearing sleeve 22 which is pressed into the inner race 23. This race rotates on balls rolling on an outer bearing race 24 which is pressed into a hole formed in the forward ends of the curved bars portions 3. An auxiliary roller 25 has a concentric recess in one side for a block 26 into which an adaptor shaft 27 is threaded the other threaded end of which may be screwed into the unoccupied portion of the sleeve 22. This gives the user a removable auxiliary roller for polishing a strip of floor outside the frame and along the wall. The journal structure of the right (viewed from the operator) hand end of the roller 21 is a duplicate of that on the left hand roller end with the exception that the former lacks a pulley for the belt 15.

The main roller 21 is provided on its periphery with a longitudinal slot 28 in which the end portions of a peripheral covering 29 of carpet or other suitable material are placed above one another. A strip 30 of wood or other material and of a length coextensive with the length of the roller 21 and of a width somewhat less than the middle of the slot 28 is placed above the end portions of the covering 29 and held in such position by screws 31. The auxiliary roller 25 has a covering and means for fastening the same similar to that of the main roller 21.

Since the weight moment of the motor just about balances that of the roller while the handle is held by a person of average height, a slight upward pressure on the handle will result in a substantial increase of the pressure of the roller upon the floor.

While I have described a particular structure and illustrated the same in the accompanying drawings, variations could be made without departing from the spirit of the invention as long as they are covered by the scope of the following claims.

I claim:

1. A floor polisher comprising an elongated handle, a fork on one end of said handle including a pair of side arms, supporting wheels rotatably carried by said side arms intermediate the length thereof, a pair of parallel rods between said arms between said wheels and said handle,

a motor, means adjustably supporting said motor on said rods, a roller, the axis of said roller and said motor being approximately equi-distant from the axis of said supporting wheels, axle pins carried by said roller concentric thereto at each end thereof, bearings carried by said side arms at the free end thereof, said pins engaging in said bearings rotatably supporting said roller on said fork, a pulley on one of said pins, and a flexible member trained about said pulley operatively connecting said roller with said motor, the weight of said motor substantially counterbalancing said roller about said supporting wheels, said arms being upwardly bowed between said wheels and said roller, whereby upward movement of said handle about the wheel axis will shorten the moment arm of said motor and increase the moment arm of said roller for applying the weight of said roller on a surface to be polished.

2. A floor polisher as set forth in claim 1, including a sheet of surfacing material encircling said roller and means removably securing said sheet on said roller.

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